

Figure 1

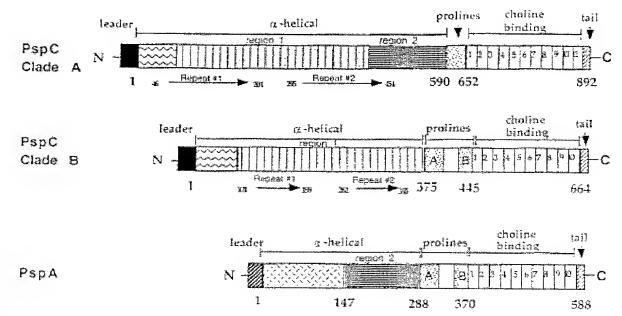


Figure 2

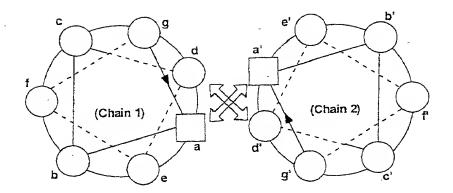


Figure 3

1. Identify Potential epitopes in PspA from Clinically Revelant Strains

Strain BG 8743 (Sterotype 23F) defgabcdefgabcdefgab LEK**DVEDFKNSDGE**QAEQVL (SEQ ID NO: 10) Residues 290-301

Strain EF5668 (Sterotype 4) defgabcdefgabcd LEDNLKDAETNNVED (SEQ ID NO: 11) Residues 330-344

Strain BG 8090 (Sterotype 19F)

defgabcdef
LAKKQTELEK (SEQ ID NO: 12)
Residues 267-276

2. Splice Epitopes Together

DVEDFKNSDGELEDNLKDAETNNVEDAKKQTELEK (SEQ ID NO: 13)

3. Replace a and d Positions (underlined)

DIEDLKNSIGELEDNIKELETNIVELAKKITELEK (SEQ ID NO: 14)

Figure 4

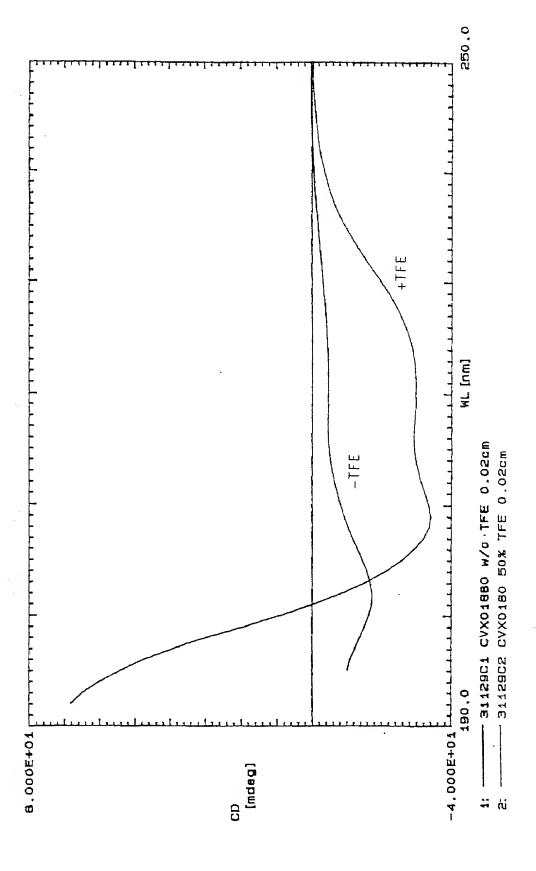


Figure 5

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--E----E-L--KIDELD-EIA-LEK-V---E----K----E---E-Y--
Consensus
                                                             79
           -- - E-df-knsngeq-aeoy-r
BG6692
                                                             299
          --E---E-LSDKIDEDDAETAKLEKNV---E-DF-KNSNGEQ-AEQY-R
Strain 23
                                                             135
Strain SP
           --E---E-ESDKIDELDAETAKLEKOY--E-DF-KNSDGEY-SAEY-L
                                                             135
          --E----E-ESDKIDEEDAETAKTEKDY---E-DF-KNSDGEY-SALY-L
Strain SP
                                                             135
           --E---E-ESDETDETDAETAKTEKNV---E-DF-KNSNGEQ-AEOY-R
BG8838
                                                             299
              ---E-ESDKIDETDAEEAKDEKNV--E-DF-KNSNGEQ-AEGY-R
strain 13
                                                             95
          --E---A-EQNKVADLENKVAELDKEVTRLQSDL-KDAEENN-VEDVVK
Strain SP
                                                             127
          --E---A-EQNKVADLENKVAELDKEVTRLQSDL-KDAEENN-VEDVVK
Strain 18
                                                             98
          --E---E-ASDKTDEEDADTAKTEKDV--E-DF-KNSDGEQ-AEOVLV
BG8743
                                                             307
          --E---E-ESDEEDAETAKTERDV---E-DF-KNSDGEQ-AEGYLV
Strain 16
                                                             143
          --E---E-ESDREDEEDABLAKLEKDV---E-DF-KNSDGEQ-AEOYLV
Strain 90
                                                             121
          --E--E-ESDKEDEEDAETAKLEKOV---E-DF-KNSDGEO-AEOYLV
Strain 13
                                                             120
          --A---E-EDKKADELQNKVADEEKEISNLEILL-GGADEE---DDT--
Strain 11
                                                             86
          --A---E-ENKKVESEQNKVADEEKEISNEEILL-GGADEE---DDT--
Strain 43
                                                             99
          --E---E-ESDKTDETDATTAKTERDV---E-DF-KNSDGEQ-AEOVLV
Strain 23
                                                             84
          AAEA---E-INKKVEA QNQVAE EELSKE DNL-KDAETNN-VE DVIK
BG11703
                                                             366
          AABA---B-BNKKVEALQNQVAEBEELSKEDNL-KDAETNN-VE BYIK
BG7817
                                                             366
          --E---E-DF-KNSDGEQ-AEÓYLV
Strain 18
                                                             122
BG9739
          --E--E-ESDKIDETDAFTAKTEKDV---E-DF-KNSDGEQ-AGQYL-
                                                             283
          L81905
                                                             283
          --E--E-SDETERDAETAKEKDV--E-DF-KNSGGGY-SAEYL-
PspA AC94
                                                             280
              ---E-Lsokedeedagiaktekdv---e-df-knsdceq-aeoylv
Strain 15
                                                             145
          AAEDANIEAEQNKVADEENKVAEEDKEVTRLQSDL-KDAEENN-VEDVVK
ATCC6303
                                                             348
BG7561
          AAEA---E-ENKKVEAEQNQVAEGEEELSKEEDNL-KDAETNN-VEGYIK
                                                             366
          AAEA---E-IDKKADELQNKVADIEKEISNEEILL-GGADEE---DDT--
Strain 23
                                                             133
          AAEA---E-EDKKADELQNKVADEKEISNEEILL-GGADEE---DDT--
Strain 18
                                                            135
          AAE DANIEAE QNKVADE ENKVAELDKENTRLQSDL-KDAEENN-VE DYVK
SP 222
                                                            127
BG9163
             297
             ----E-Esgki fetdaetaele--V---Q--l-kdaegnnnveayfk
EF6796
                                                            296
          AAEA--E LOKKADELQNKVADLEKEISNLEILL-GGADEE---DDT--
BG8090
                                                            414
          AEDA---E-DOKKADELQNKVADEEREISNEEILL-GGADSE---DDT--
EF3296
                                                            413
          --E----ESDKYDEIDAETAKEE-D---Q--L-KAAEENNNVEBYFK
Rx1
                                                            261
          --E---E-ESDKIDELDAETAKTEKNÝ--EY-F-KKTDÁEQ-TEOYL-
DBL1
                                                            283
EF5668
          AABA---E-INEKVEABQNQVAETEEELSKEEDNL-KDAETNN-VE DVIK
                                                            347
          --E---E-ESDETDETDAETAKEE-D---Q--L-KAVEENNNVE DYST
Wu2
                                                            290
          --E---E-ISDKIDELDAETAKTE-D---Q--L-KAAEENNNVE DYFK
EF10197
                                                            282
PspA AC12
          AEEA---E-EDKKADELQNKVADEEKEISNEEILL-GGADSE---DDT--
                                                            321
          DBL5
                                                            284
          -- TEDRRNYPTNTYKTEDIETAESDVKVKEAELELVKEEAKESRNEEKVK
DBL6A
                                                            . 366
          GEETLILA-IQNKISDEDDKIAEAEKKLADSQ-----NGEG-VEDYWT
BG6380
                                                            303
```

Figure 6

Figure 7: CD Spectrum of CVX0270 Wavelength (nm) Ö -20000-

Molar Ellipticity (deg.cm2.dmol-1)

20 Figure 8: Thermal Denaturation of Peptide CVX0270 90 →-- CVX0270 20 Temperature (°C) 30 20 9 0.9 (**3° č**) gebm/gebm 0.0 0.5 4.0 0.8 0.7 0.3 0.2 0.1 0

80